

HIV/AIDS: a systematic review and meta-analysis.

Prostate Cancer and Prostatic Diseases, 13 Aug 2020,
DOI: [10.1038/s41391-020-00268-2](https://doi.org/10.1038/s41391-020-00268-2) PMID: 32801354

Abstract

BACKGROUND:Although previous studies have shown a decreased incidence of prostate cancer in men with HIV/AIDS, the consensus has not been reached. Our aim is to conduct a systematic review and meta-analysis to assess the risk of prostate cancer among people with HIV/AIDS. **METHODS:**We systematically searched PubMed, Web of Science, Embase, and Cochrane Library until March 2020. Cohort studies were included if they compared the prostate cancer risk between people with HIV/AIDS and uninfected controls or the general population. The summary standardized incidence ratio (SIR) and 95% confidence interval (CI) were calculated using a random-effects model. **RESULTS:**A total of 27 studies were included for analysis, with more than 2780 males with HIV/AIDS developing prostate cancer. The results showed that HIV infection was associated with a decreased risk of prostate cancer incidence (SIR, 0.76; 95% CI, 0.64-0.91; $P = 0.003$), with significant heterogeneity ($P < 0.001$; $I^2 = 91.6\%$). A range of sensitivity analyzes did not significantly change the results. **CONCLUSIONS:**Our study shows that people with HIV/AIDS have a lower incidence of prostate cancer compared with the general population. However, significant heterogeneity exists among the included studies. Further prospective studies with better designs are needed to elucidate the association between HIV infection and prostate cancer.